TEAC® A-7010

STEREO TAPE DECK SERVICE DATA

FACTORY STANDARDS

PREAMPLIFIERS

Transistors: 29silicon transistors, 2SC482 x 1, 2SC732 x 4, 2SA494 x 2, 2SC733 x 12, 2SC369 x 4, 2SC491 x 2, 2SC372 x 4,

Frequency Response: 3¾ips: ±2 dB 100Hz–7.5KHz
7½ips: ±2 dB 100Hz–15KHz
Overall from recording input to playback output.

Signal to Noise Ratio: 54 dB Peak record level to unweighted noise.

Crosstalk Rejection: 45 dB channel to channel at 1KHz.
40 dB between adjacent track at 100Hz

Input: MIC: High impedance unbalanced, 10Kohms, 0.5mV
LINE: 200Kohms, 0.1V

Output: 1V for load impedance of 100Kohms or more.

Equalization: NAB Equalization
3¾ips: 90μ sec.
7½ips: 50μ sec.

Bias Frequency: 100KHz push-pull oscillator.

Erasing Effect: 60 dB at 7½ips tape speed.

Distortion at 1KHz: Better than 1.5% at operating level.

Monitoring Headphones: Low impedance, 8 ohms.

Power Requirements: 100/115/200/220/240 VAC, 50/60Hz.
150W MAX (Conversion can be easily done)

Dimensions and Weight: 20 7/8"(H) x 17½"(W) x 8¼"(D), 62 lbs.

Heads: Four separate heads assembled in plug in unit.
4 track ERASE
1.8Kohms/100KHz, Erase current approx. 35mA.
4 track record:
10Kohms/10KHz, Bias current approx. 2.1mA.
4 track playback: 3.5Kohm/1KHz.

Reel Size: 10½" maximum NAB reel.

Tape Width: Standard ¼ inch tape.

Tape Speed: 3¾ and 7½ips (±0.5%)

Motors: One 4/8 pole dual speed hysteresis synchronous motor for capstan drive.
Two 6-pole eddy current motors for reel drive.

Wow and Flutter: 3¾ips: 0.16%
7½ips: 0.07%
Wow and flutter measured according to weighted NAB standard using TEAC flutter free tape.

Fast Winding Time: Approx. 200 seconds for 3,600ft. (10½" NAB reel)

Starting Time: 1 second to reach stable speed.

Controls: The tape motion is controlled by four push-buttons. Tape speed is selected by the motor winding switch.

TAPE TRANSPORT

Specifications and components subject to change without notice.

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PARTS ORDERING INFORMATION

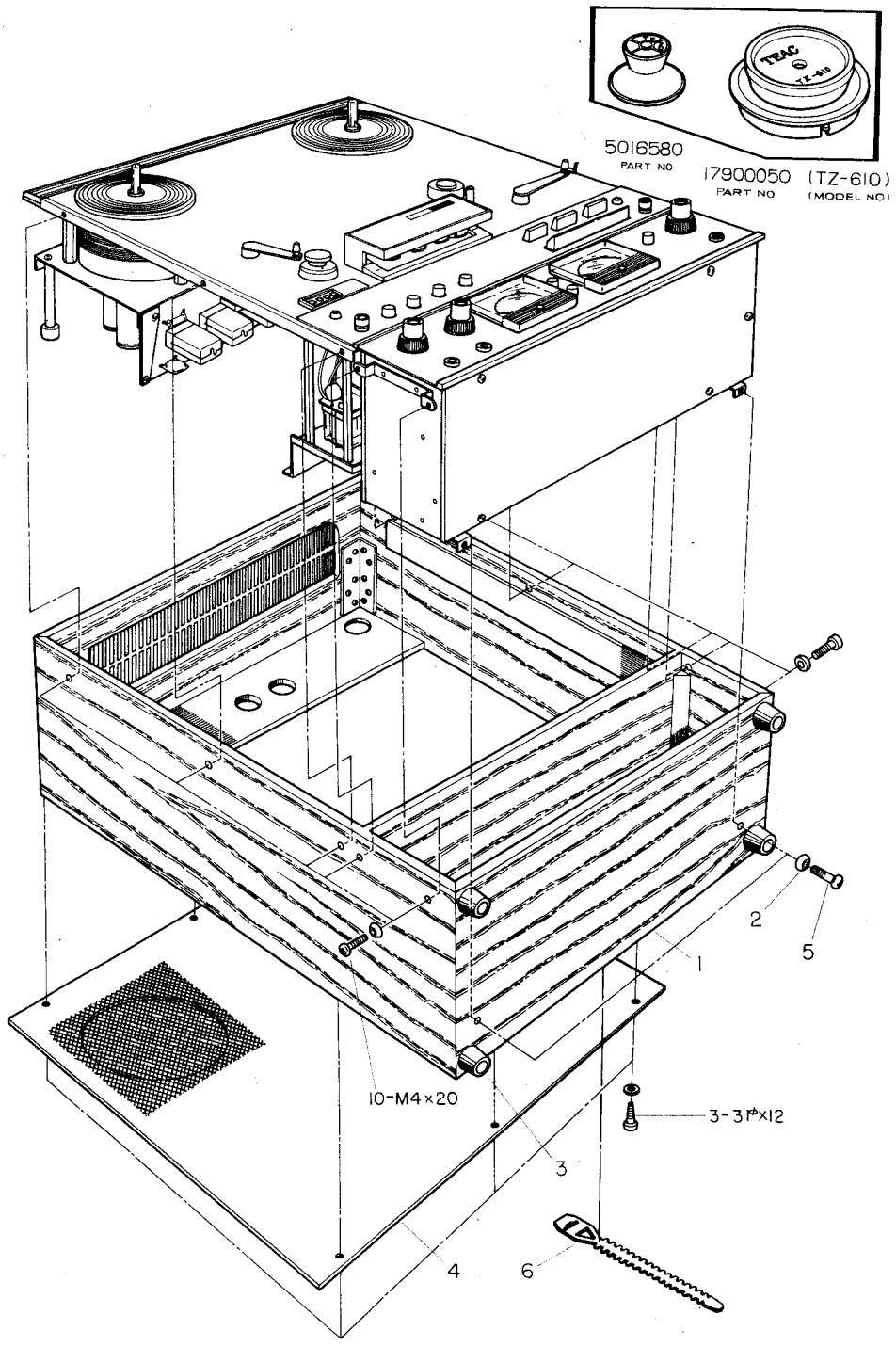
Since TEAC products are constantly being improved and changes made, please include the following items when placing an order:

SAMPLE

MODEL AND SERIAL NO.		*REF. NO.*	*PART NO.*	*DESCRIPTION*
A-7010	**No. 08111**	**1-5**	**16498026**	**SCREW**

EXPLODED VIEW 1

CASE PARTS



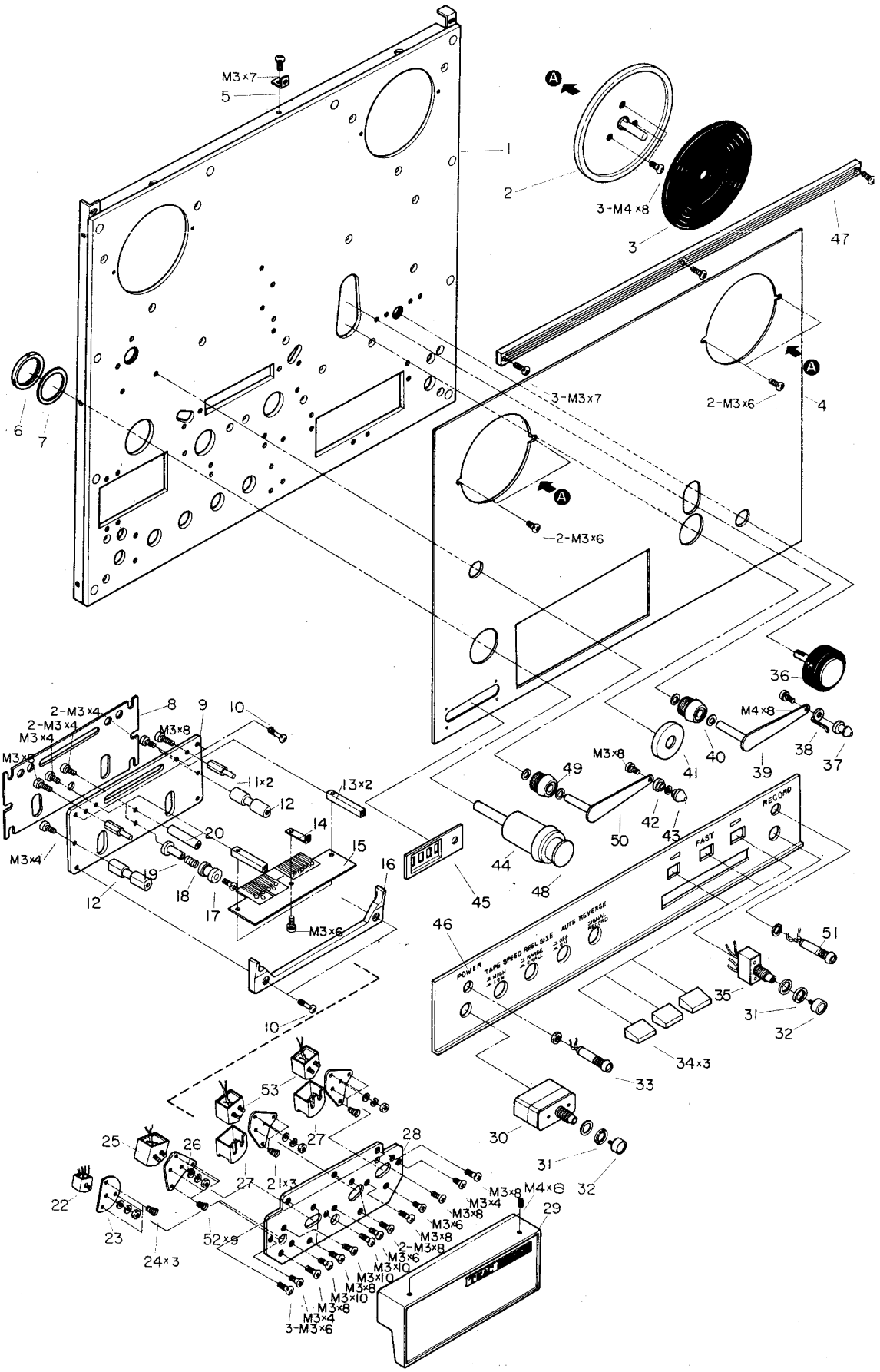
PARTS LIST 1

CASE PARTS

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
1– 1	17961100	Cabinet		
1– 2	16496137	Metal insert		
1– 3	50283830	Rubber feet		
1– 4	17960940	Cover plate assy		
1– 5	16498026	Screw		
1– 6	50271770	Plastic cable clamp		

EXPLODED VIEW 2

ABOVE MAIN CHASSIS

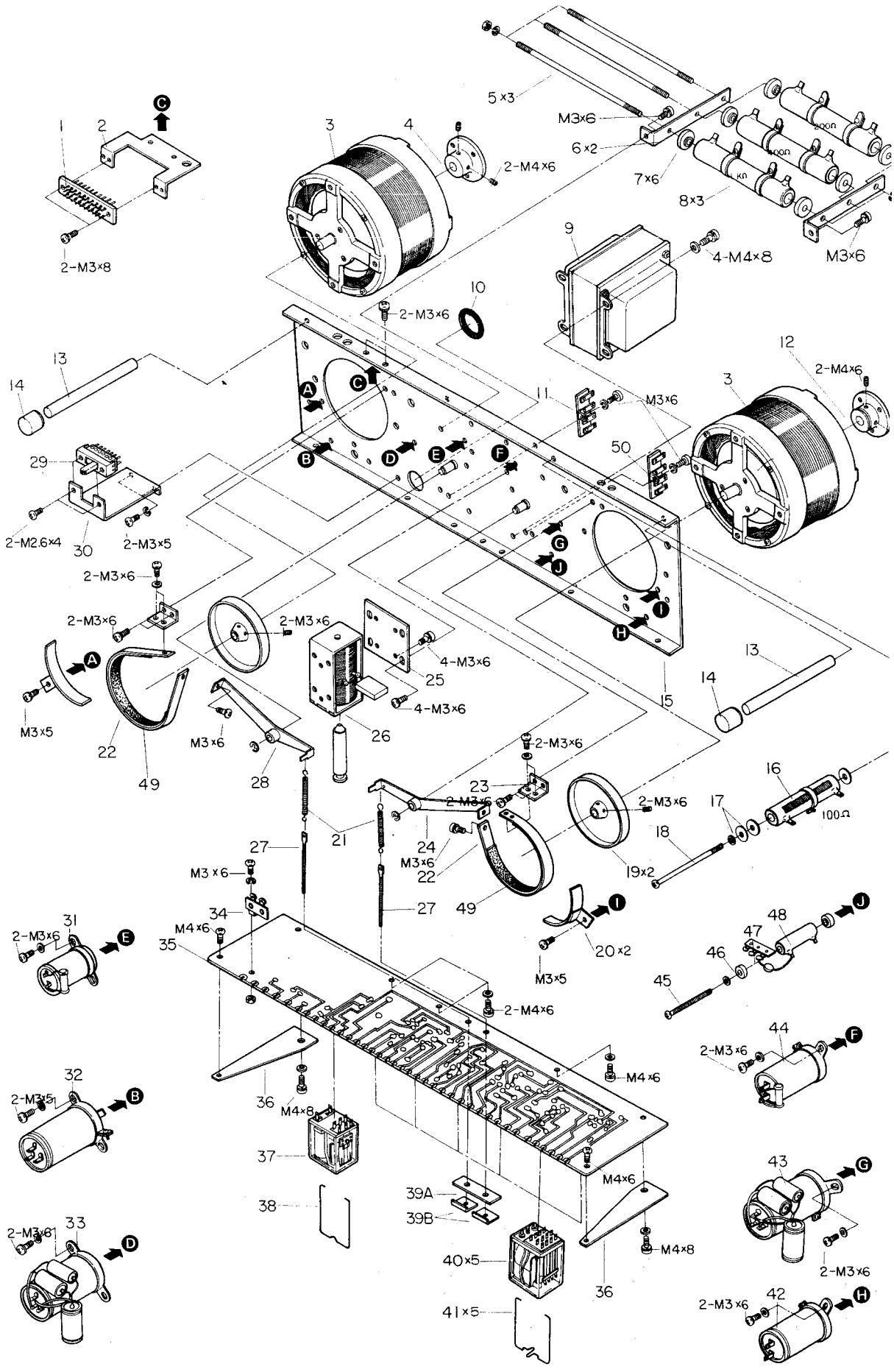


ABOVE MAIN CHASSIS

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
2– 1	16140560	Top panel		
2– 2	16742640	Reel table		
2– 3	16780760	Reel table cover		
2– 4	16140550	Stainless steel panel		
2– 5	50111710	Mounting bracket		
2– 6	50121430	Slotted nut		
2– 7	50121440	Washer		
2– 8	50133751	Shield plate		
2– 9	50133741	Housing base plate		
2–10	50132770	Head assy mounting screw		
2–11	50133760	Mounting post		
2–12	50133810	Tape guide		
2–13	50132610	Mounting post		
2–14	50132600	Mounting bracket		
2–15	50480530	Plug for head assy		
2–16	50133720	Head cover		
2–17	50132640	Tape guide		
2–18	50220110	Spring		
2–19	50132630	Tape guide mounting shaft		
2–20	16742610	Round pore		
2–21	50220470	Head Mounting Spring (A)		
2–22	50663030	Erase head		
2–23	50133601	Erase head mounting plate		
2–24	50220470	Head mounting spring (A)		
2–25	50666041	Record head		
2–26	50133830	Head mounting plate		
2–27	50133702	Playback head shield		
2–28	50133732	Head mount base plate		
2–29	50133710	Head housing assy		
2–30	50443290	Power switch		
2–31	50252290	Mounting nut		
2–32	50252280	Push button		
2–33	13292063	Indicator lamp (Orange)		
2–34	50252270	Control button (Small)		
2–35	50443280	Record switch		
2–36	50140200	Pinch roller assy		
2–37	50182340	Tape guide post (Right)		
2–38	50182360	Tape retainer arm		
2–39	16761440	Tension arm		
2–40	50181920	Arm holder		
2–41	50122862	Dust cap		
2–42	16761431	Guide (B)		
2–43	16761421	Guide (A)		
2–44	50122360	Impedance roller housing		
2–45	50271810	Tape counter escutcheon		
2–46	16140580	Front panel		
2–47	50111791	Air vent		
2–48	16740180	Impedance roller		
2–49	16310370	Arm housing (B)		
2–50	16761490	Tension arm		
2–51	13292062	Indicator lamp (Red)		
2–52	50220500	Head mounting spring (B)		
2–53	50669040	Playback head		

EXPLODED VIEW 3

SUB CHASSIS ASSEMBLY

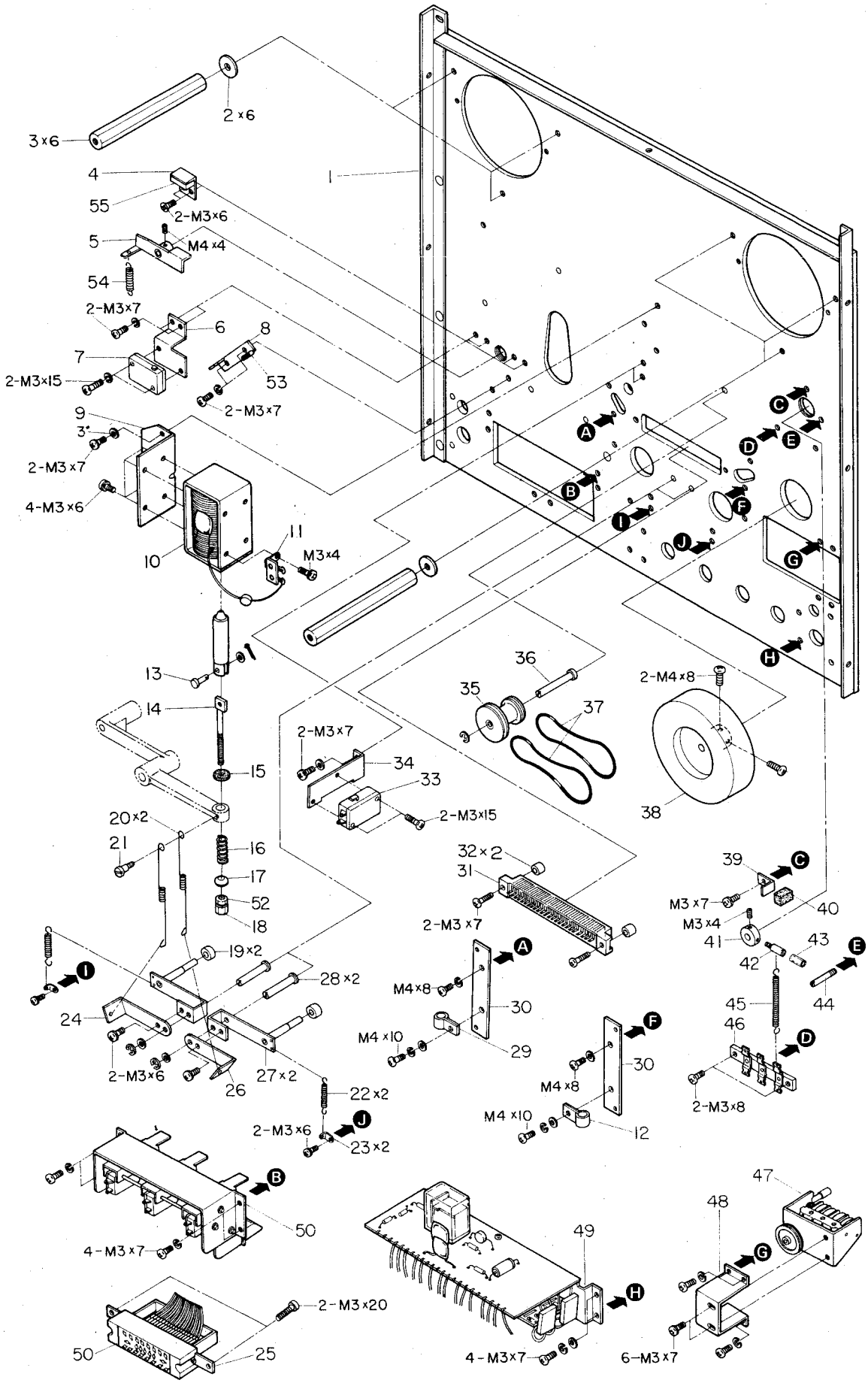


CONTROL SWITCH ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
6– 1	15580400	Record relay PC board assy		
6– 2	50273030	Switch mounting plate		
6– 3	50443300	PS record switch assy		
6– 4	50443310	Tape speed switch assy		
6– 5	50443320	Reel size switch assy		
6– 6	50252320	Push button (A)		
6– 7	50273050	Switch housing (A)		
6– 8	50252301	Switch mounting rod		
6– 9	50252270	Control button (B)		
6–10	50273070	Switch mounting bracket (C)		
6–11	13221007	Micro switch		
6–12	50252340	Control button (A)		
6–13	50273060	Mounting bracket (B)		
6–14	50273150	Mounting bracket (D)		
6–15	13221007	Micro switch		
6–16	50271790	Insulator		
6–17	50273040	Switch mounting bracket		
6–18	50273120	Rubber pad		

EXPLODED VIEW 7

BELOW MAIN CHASSIS

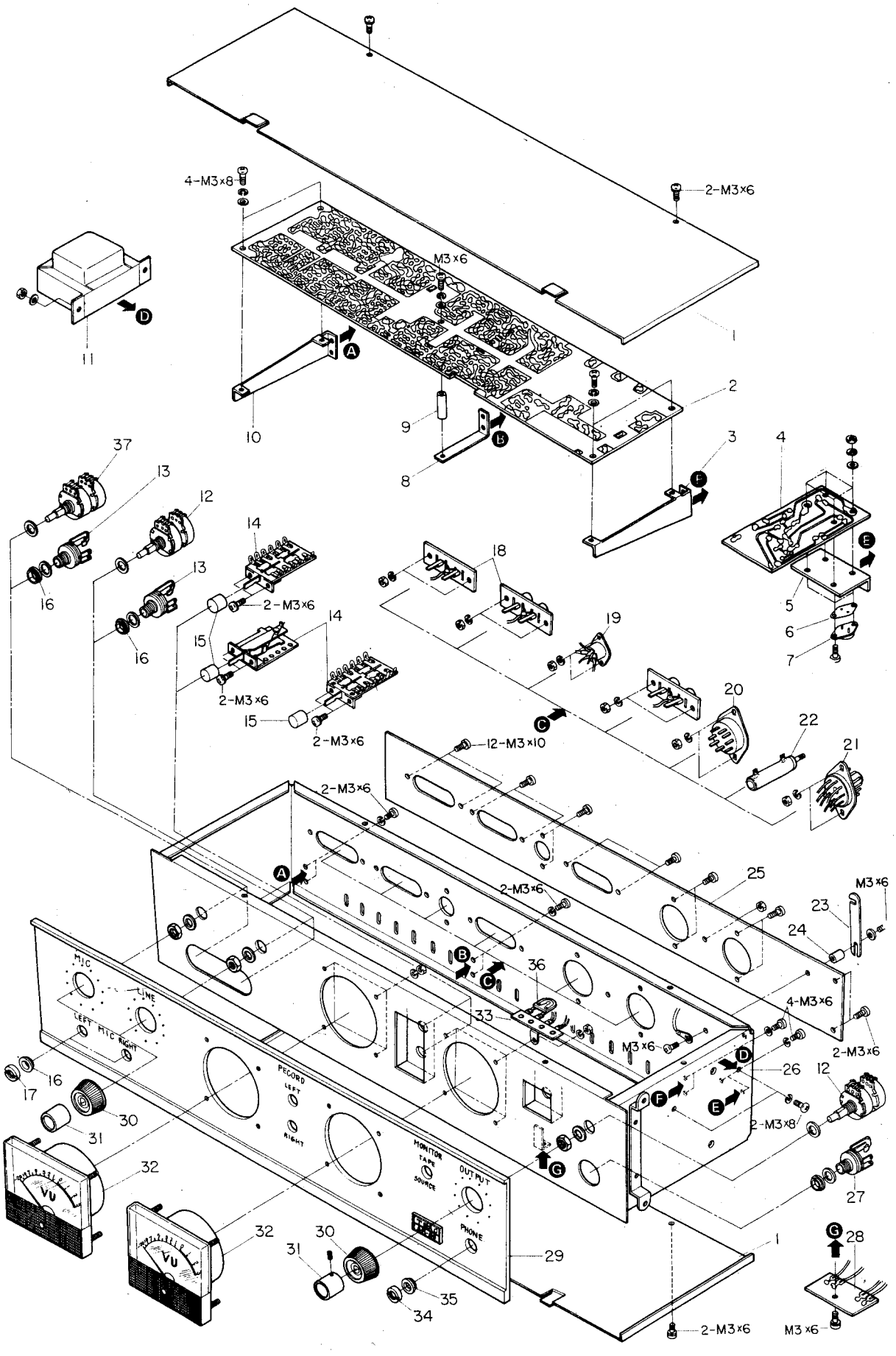


BELOW MAIN CHASSIS

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
7– 1	16140560	Top panel		
7– 2	16496134	Washer		
7– 3	16704260	Reel motor supporting post		
7– 4	50272940	Magnet		
7– 5	50273361	Micro SW operating arm		
7– 6	50272951	Switch mounting plate		
7– 7	13221010	Micro switch		
7– 8	50141561	Mechanical stop		
7– 9	50141550	Solenoid mounting plate		
7–10	14770140	Solenoid		
7–11	13170000	Terminal block 1L-1P		
7–12	50271440	Cable cramp (A)		
7–13	16702890	Plunger pin (A)		
7–14	50121530	Pressure adjusting screw		
7–15	50273320	Felt washer		
7–16	50220040	Pressure spring		
7–17	50141581	Spacer		
7–18	50141500	Double nut (A)		
7–19	16360260	Rubber washer		
7–20	50151963	Lifter spring		
7–21	50151970	Set screw		
7–22	50151963	Lifter spring		
7–23	50455010	Terminal lug		
7–24	16700540	Lifter adjusting arm (Right)		
7–25	16704560	Connector mounting bracket		
7–26	16700500	Lifter adjusting arm (Left)		
7–27	50150130	Lifter arm assy		
7–28	50151980	Lifter arm shaft		
7–29	50271440	Cable cramp (B)		
7–30	50133770	Head assy mounting plate		
7–31	13100738	Head connector socket		
7–32	16357770	Spacer		
7–33	13221010	Micro switch		
7–34	50273141	Switch mounting bracket		
7–35	16340030	Index counter idler pulley		
7–36	16704290	Idler shaft		
7–37	16080090	Rubber belt		
7–38	50122141	Fly wheel		
7–39	50111710	Mechanical stop		
7–40	16340060	Styrofoam pad		
7–41	16722730	Tension arm retaing wheel		
7–42	50123140	Limit arm		
7–43	16780900	Plastic sleeve		
7–44	50181360	Mechanical stop		
7–45	50220030	Return spring		
7–46	13370047	Terminal block		
7–47	50585050	Index counter		
7–48	16704270	Supporting bracket		
7–49	-------	Recording relay assy		
7–50	17960230	Control switch assy		
7–51	13100412	Connector plug 24P		
7–52	50141510	Double nut (B)		
7–53	16360720	Rubber bumper		
7–54	50182311	Right tension arm spring		
7–55	50181250	Magnet mounting bracket		
7–56	50271450	Cable cramp (A)		

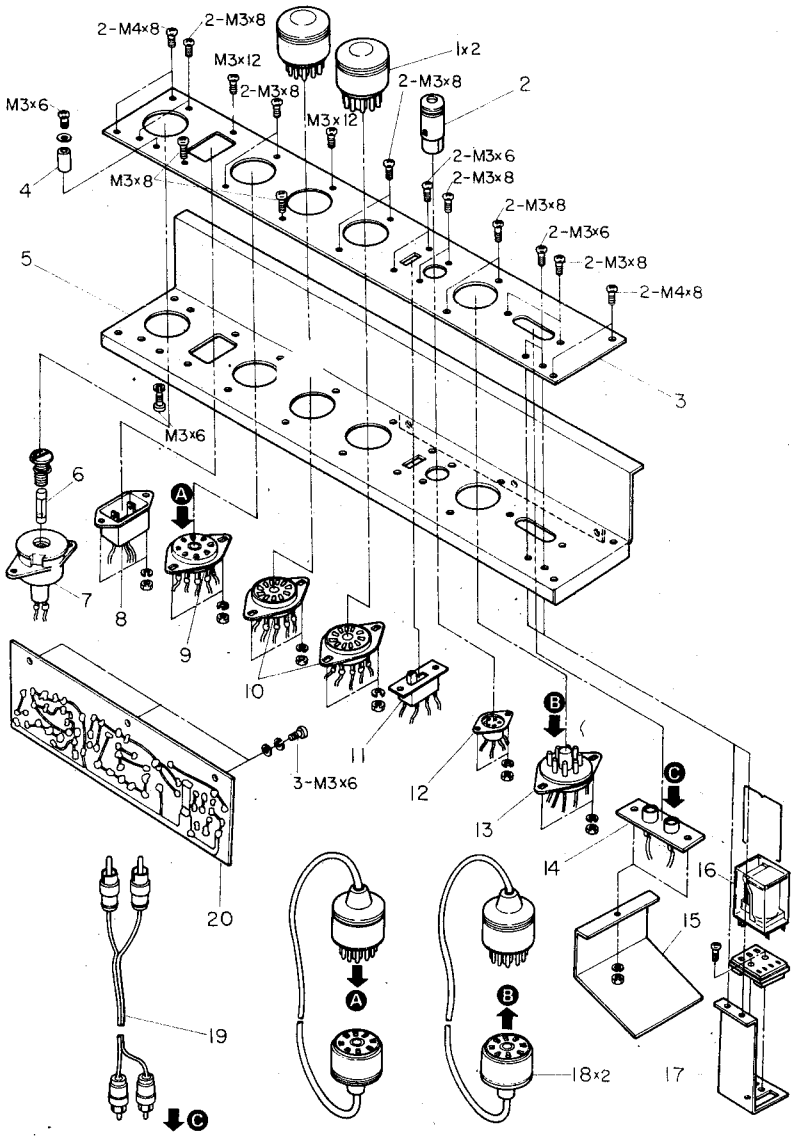
EXPLODED VIEW 8

PREAMPLIFIER CHASSIS



EXPLODED VIEW 5

BACK PANEL



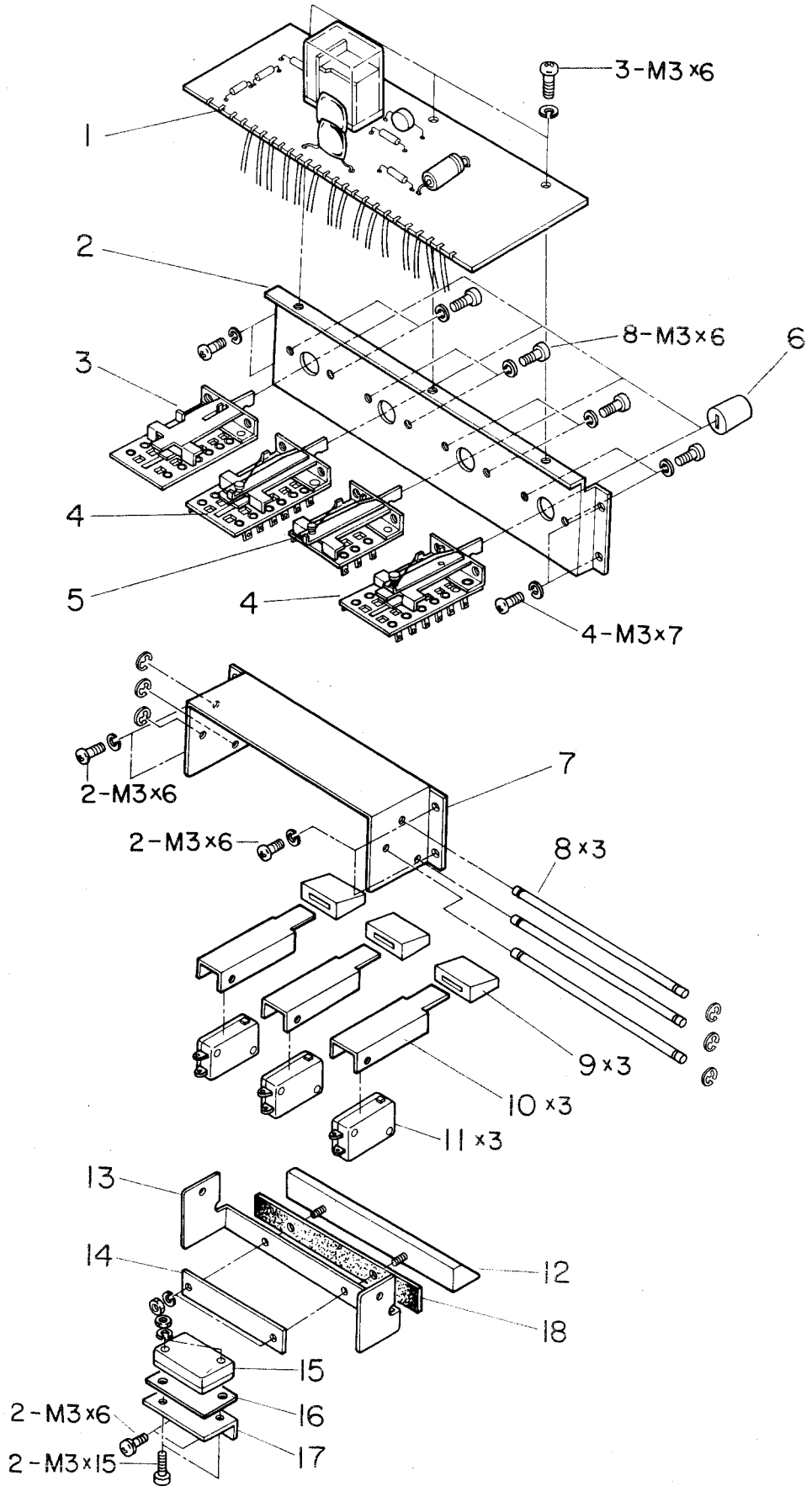
PARTS LIST 5

BACK PANEL

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
5– 1	**54744900**	**Dummy Plug**		
5– 2	**5043026**	**Dummy Plug Pause**		
5– 3	**16780743**	**Rearname Plate**		
5– 4	**16357110**	**Ground Terminal**		
5– 5	16704061	Chassis		
5– 6	13291060	Fuse 2A		
5– 7	13291060	Fuse holder voltage conversion plug		
5– 8	50431051	AC power		
5– 9	50434650	Socket (to amp)		
5–10	13150059	Socket (remote)		
5–11	13224003	Slide switch (6 pol)		
5–12	13150046	Socket (pause) (6 pin)		
5–13	50434090	Socket (rec/erase head)		
5–14	50434630	Dual pin jack connector		
5–15	50111811	Shield plate		
5–16	**5061042**	**Head Relay**		
5–17	**50133880**	**Head Relay Mounting Plate**		
5–18	**54810600**	**8 Pin Inter Connecting Cable**		
5–19	15920320	Inter connecting cable w/pin jacks		
5–20	50480490	Phase sensing PC board assy		

EXPLODED VIEW 6

CONTROL SWITCH ASSEMBLY

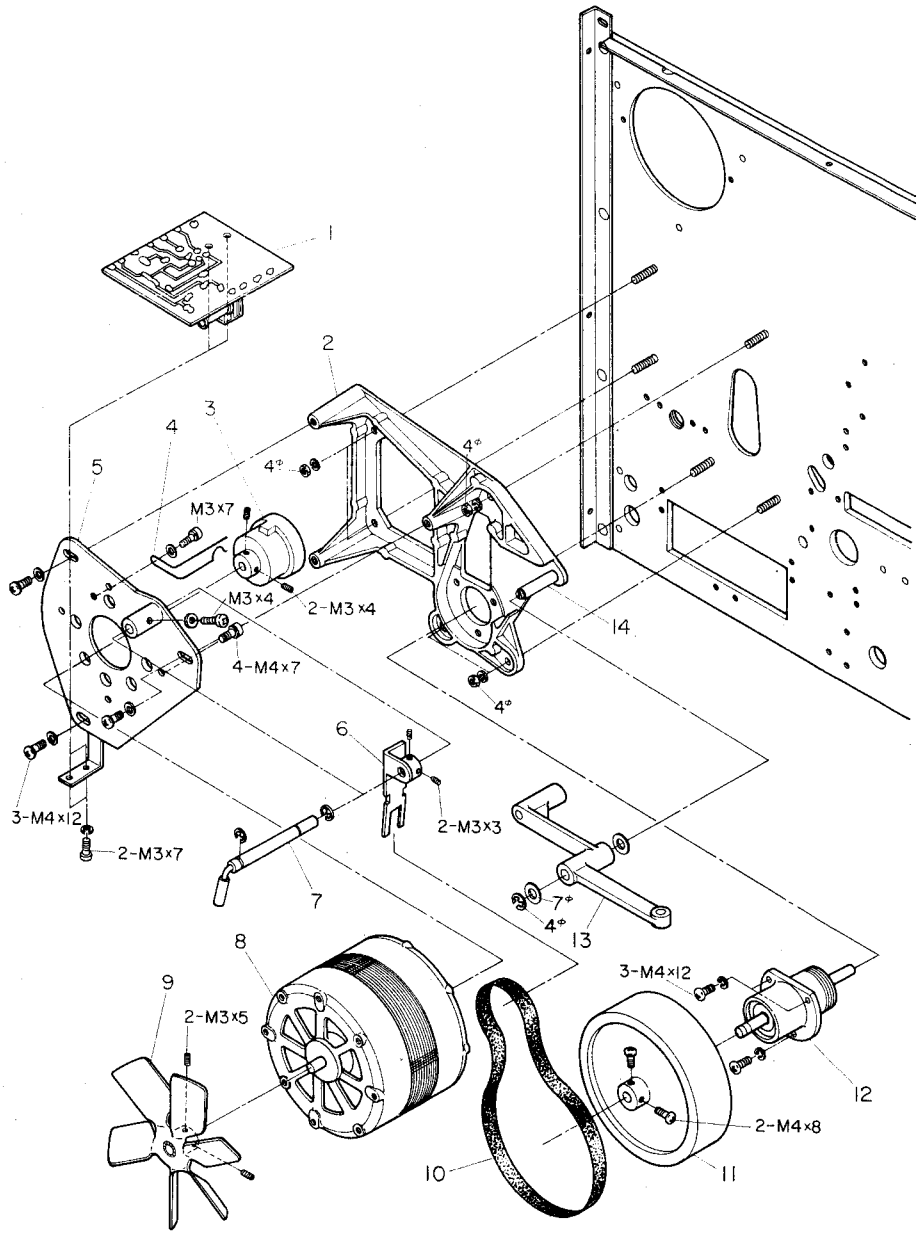


SUB CHASSIS ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
3– 1	13100404	Connector plug 24P		
3– 2	16704540	Mounting bracket		
3– 3	14743120	Eddy current motor		
3– 4	16770180	Reel table mount (Right)		
3– 5	------	Resistor mounting bolts		
3– 6	16704180	Mounting bracket		
3– 7	------	Insulators		
3– 8	11940020	Wire wound resistor 200		
3– 8	11940019	Wire wound resistor 400		
3– 8	11940015	Wire wound resistor 1 K		
3– 9	14700750	Power transformer		
3–10	16360440	Rubber grommet		
3–11	13170009	Terminal block 1L-3P		
3–12	16770170	Reel table mount (Left)		
3–13	16704120	Deck support		
3–14	50321740	Rubber pad		
3–15	16704110	Motor mounting plate		
3–16	11930000	Wire wound resistor		
3–17	------	Washers		
3–18	------	Resistor mounting bolt		
3–19	16742630	Brake drum		
3–20	16704130	Brake band guide		
3–21	16380191	Brake spring		
3–22	16722570	Brake band		
3–23	16704140	Brake band anchor plate		
3–24	16704160	Left brake arm		
3–25	16704150	Solenoid mounting plate		
3–26	14770130	Solenoid		
3–27	16498116	Brake adjustment shaft		
3–28	16704170	Right brake arm		
3–29	50444070	Slide switch		
3–30	50273130	Switch mounting plate		
3–31	12055108	Electrolytic capacitor		
3–32	12900032	Electrolytic capacitor		
3–33	12900040	Electrolytic capacitor		
3–34	13170007	Terminal block 2P-1L		
3–35	13340192	Control circuit PC board		
3–36	16700700	Reinforcing plate		
3–37	13200045	Relay (12V DC) w/Holing clip		
3–38	16704190	Relay holing clip		
3–39	16498117	Brake ads. stopper (AB)		
3–40	13200025	Relay (100V DC)		
3–41	------	Relay holding clip		
3–42	------	Electrolytic capacitor 100μF 160WV		
3–43	------	MP capacitor 4+1μF 250WV		
3–44	12063107	Electrolytic capacitor 100μF 160WV		
3–45	------	Resistor mounting screw		
3–46	------	Insulator		
3–47	13170008	Terminal block 1L-3P		
3–48	11900011	Resistor (wire wound)5HA 10Ω		
3–49	16780890	Brake band lining		
3–50	13170009	Terminal block 1L-3P		

EXPLODED VIEW 4

CAPSTAN ASSEMBLY



PARTS LIST 4

CAPSTAN ASSEMBLY

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
4– 1	15580120	Spark suppressor		
4– 2	50122901	Capstan base P C board		
4– 3	50120111	Capstan motor pully		
4– 4	50122950	Freq. change lever clip		
4– 5	50122794	Motor mounting plate		
4– 6	50122771	Belt guide		
4– 7	50122942	Frequency change lever		
4– 8	50701141	Capstan motor		
4– 9	16301240A	Cooling fan		
4–10	50122850	Capstan belt		
4–11	50123021	Capstan fly wheel		
4–12	17960890	Capstan shaft assy		
4–13	50141593	Pinch roller arm		
4–14	50141571	Pinch roller shaft		

PREAMPLIFIER CHASSIS

REF. NO.	PART NO.	DESCRIPTION	1st Revision	2nd Revision
8– 1	16704020	Chassis cover		
8– 2	15580241	Amplifier PC board assy		
8– 3	50231920	Mounting bracket (B)		
8– 4	50481360	Oscillator assy		
8– 5	16742720	Transistor mounting heat sink		
8– 6	———————	Insulator		
8– 7	13424051	Transistor 2SC 491-Y		
8– 8	50231930	Mounting bracket (C)		
8– 9	50240630	Spacer		
8–10	50231910	Mounting bracket (A)		
8–11	50561321	Power transformer		
8–12	50537090	Dual potentiometer (100 k)		
8–13	50430100	Phone jack		
8–14	50443270	Push switch		
8–15	50252320	Push button		
8–16	50272620	Ornament nut (B)		
8–17	50231951	Ornament nut (A)		
8–18	50434440	Dual pin jack connector		
8–19	50430010	DIN receptacle		
8–20	50434650	Socket (erase/rec head)		
8–21	50522110	Socket (to deck)		
8–22	50434090	Resistor 320Ω 10W		
8–23	16300330	Shorting bar		
8–24	16356630	GND. terminal		
8–25	50232021	Rear name plate		
8–26	16704010	Chassis		
8–27	50434180	Phone jack 3P		
8–28	15580320	Meter adjusting PC board		
8–29	50231991	Front panel		
8–30	16290300	Knob (B)		
8–31	16290290	Knob (A)		
8–32	50581142	VU meter		
8–33	50452020	Terminal block 1L-3P		
8–34	50231961	Ornament nut (C)		
8–35	50272620	Ornament nut (B)		
8–36	50533060	PC mounting resistor		
8–37	50537100	Dual potentiometer (10k)		

PRINTED CIRCUIT BOARD AND PARTS LIST [redacted]

TAPE TRANSPORT

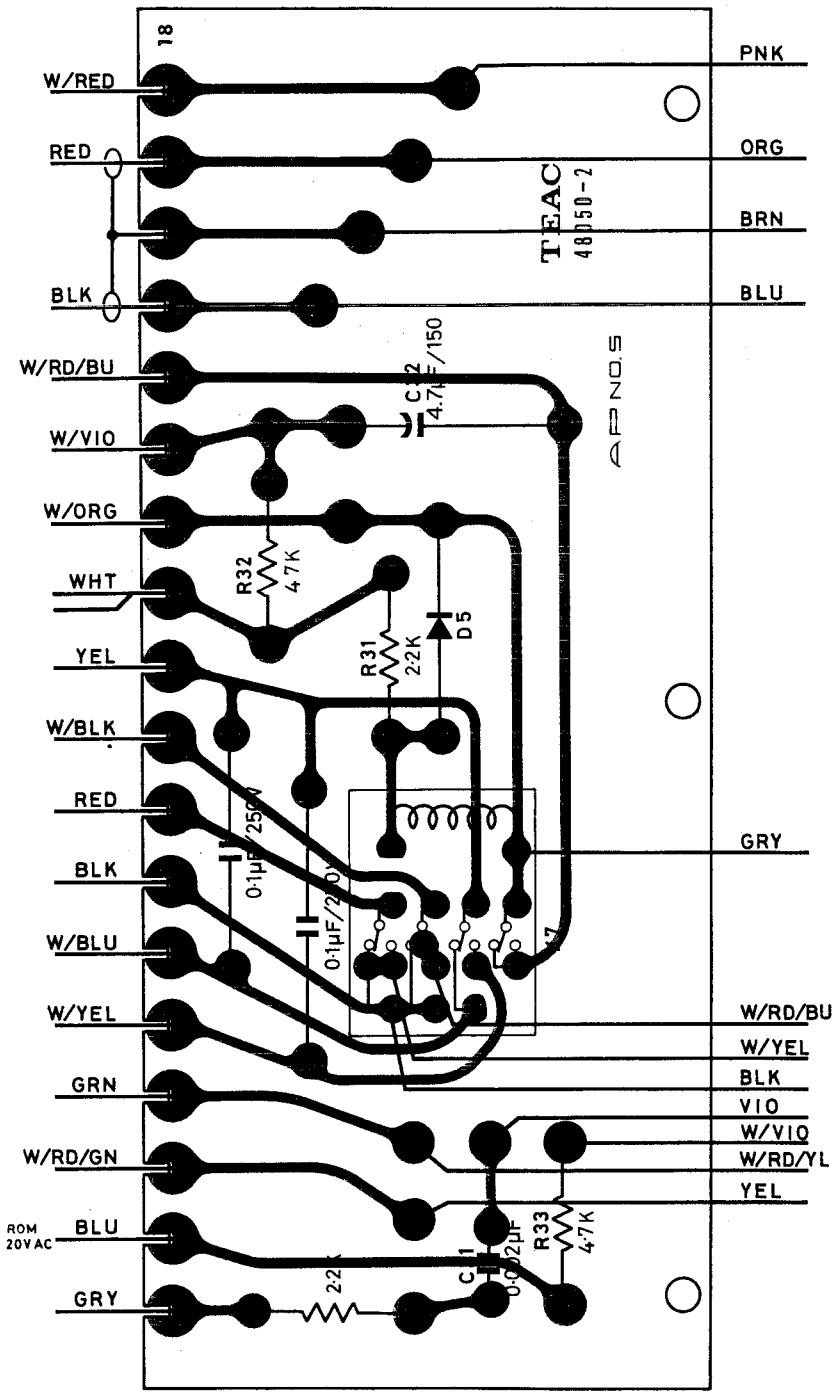
CONTROL RELAYS

PARTS No.	DESCRIPTION	1st Revision	2nd Revision
13340192	Control Relay PC Board		
13200025	DC 100V Relay PL-MY4PY1-0		
13200045	DC 12V Relay MHZZPM1-0		
12900037	Metallized Mylar Cap 0.1μF/250WV		
12045335	Electrolytic CAP 3μF/150WV		
12800001	Spark-killer 0.1μF+120ohms		
11980016	Wirewound resistor 10ohms(K)1W		
11133152	Resistor 1.5Kohms(K)1W		
13411014	Diode FR-1MD		

CAPSTAN RELAYS

PARTS NO.	DESCRIPTION	1st Revision	2nd Revision
15540200	Spark-Killer Assy		
13340202	PC Board PM-4020-1		
13200025	Relay DC 100V		
12900037	Metallized Mylar Cap 0.1μF/250WV		
11133203	Resistor 20kΩ(k) 1W		
	Screw M3x6S		
12800001	Spark-killer 0.1μF+120Ω		

RECORD RELAY ASSEMBLY

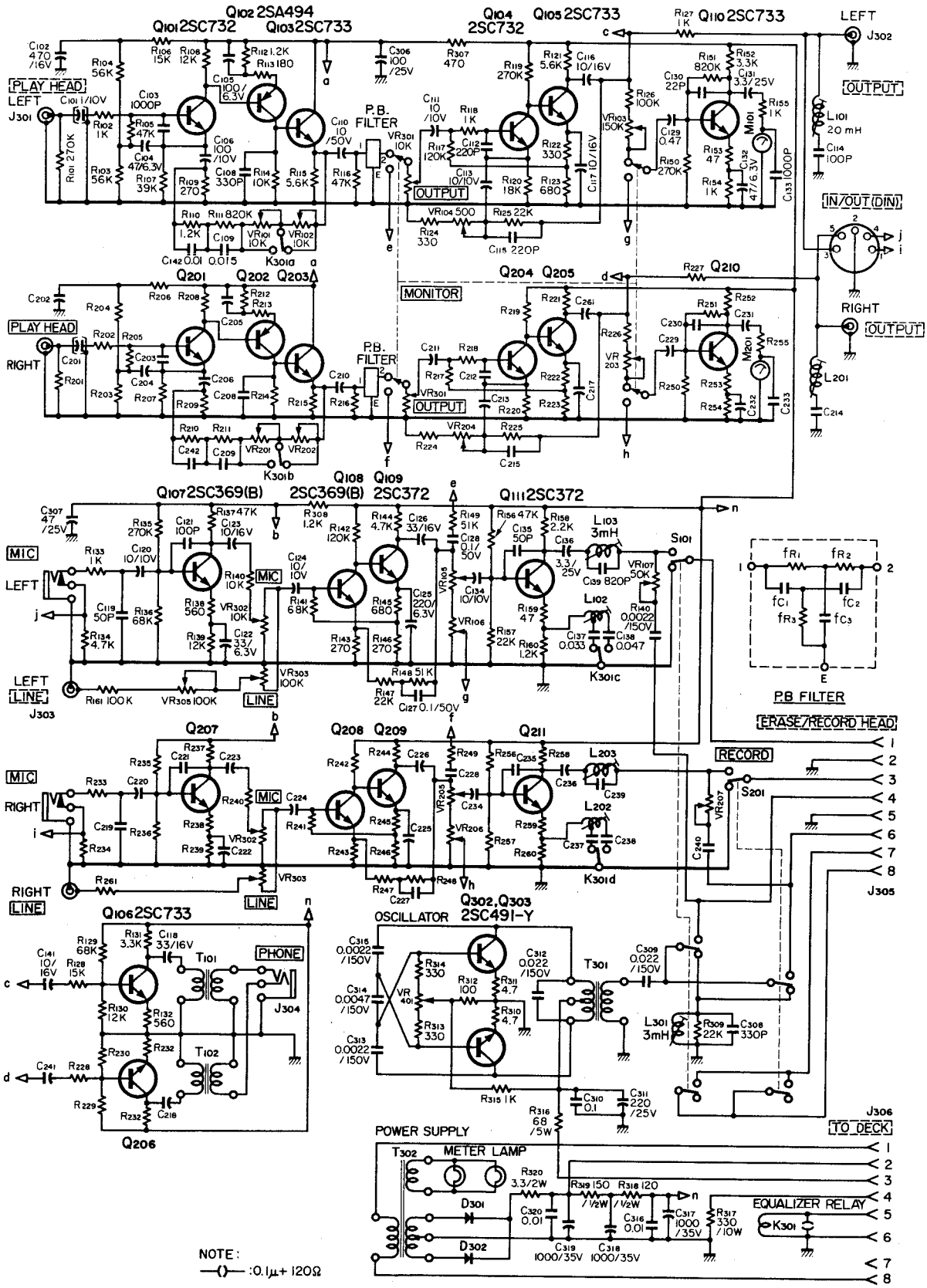


PARTS LIST

CIRCUIT REFERENCE	PART NO.	DESCRIPTION	1st Revision	2nd Revision
	15580400	Record Relay P C Board ASSY		
	50480502	Record Relay P C Board		
		Screw M3x6		
K7	13203105	Relay KGS K6-4P 100V		
C32	12045475	Electrolytic CAP 4.7μF/50WV		
R31	11112222	Resistor 2.2kΩ(k) ½W		
R32	11112473	Resistor 47kΩ(k) ½W		
R33	11109472	Resistor 4.7KΩ(K) ¼W		
	12900037	Metallized Mylar Cap. 0.1μF/250W		

SCHEMATIC DIAGRAM
A-7010

PREAMPLIFIER

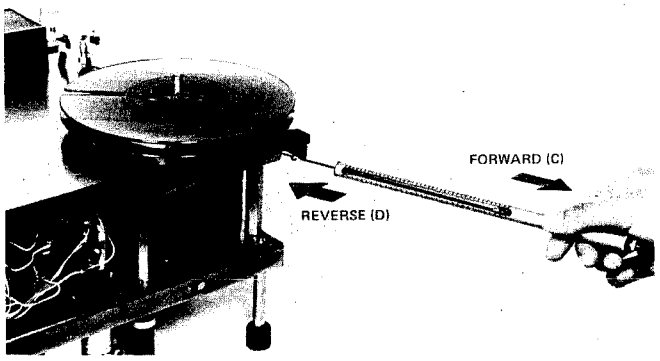


NOTES
1 SCHEMATIC DIAGRAM SHOWN IN THE PLAYBACK MODE.
2 ALL RELAYS SHOWN NOT ENERGIZED.
3 MONITOR SWITCH SHOWN IN THE TAPE POSITION.
4 K301 EQUALIZATION RELAY SHOWN IN THE 7½ IPS POSITION.
5 UNLESS OTHERWISE SPECIFIED:
ALL RESISTOR VALUES IN OHMS, ¼WATT,
K= 1,000 OHMS
ALL CAPACITORS VALUES IN MICROFARADS.
6 ▭: ON FRONT PANEL, ▭: ON REAR PANEL.

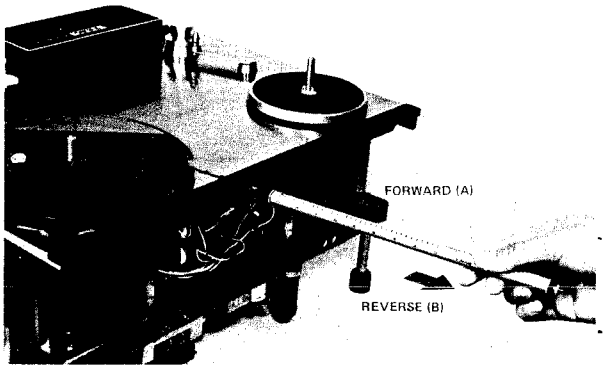
TAPE TRANSPORT PARTS LOCATION 4

TAPE TRANSPORT PARTS LOCATION

MEASUREMENT AND ADJUSTMENT

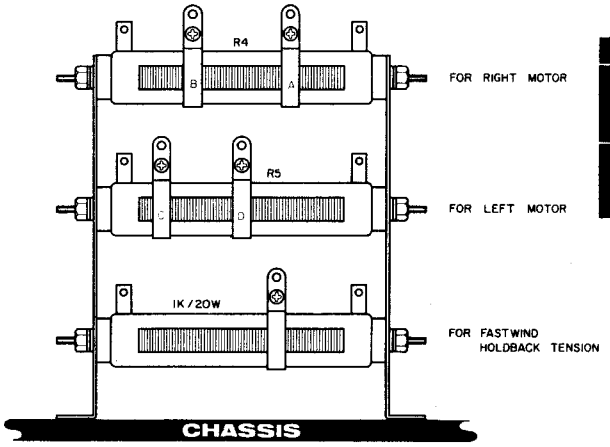


LEFT REEL MOTOR



RIGHT REEL MOTOR

TORQUE MEASUREMENT



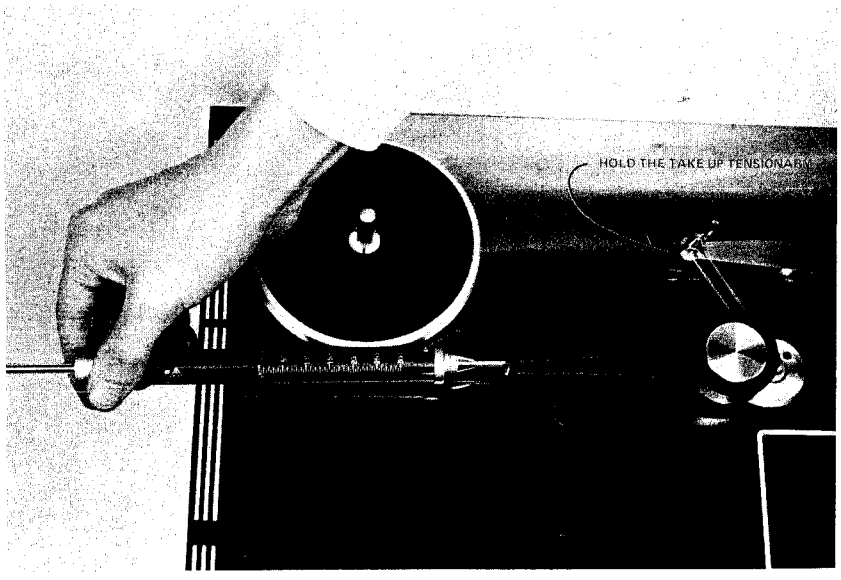
ADJUSTABLE PARTS LOCATION

REEL MOTORS TORQUE

MODE	LEFT MOTOR		RIGHT MOTOR		
FORWARD	4.2 oz-in (C)	300g-cm $\pm^{30}_{6}$	11.2 oz-in (A)	800g-cm $\pm^{50}_{0}$	10"
	1.4 oz-in	200g-cm $\pm^{20}_{0}$	7.0 oz-in	500g-cm $\pm^{50}_{0}$	7"
REVERSE	11.2 oz-in (D)	800g-cm $\pm^{50}_{0}$	5.6 oz-in (B)	400g-cm $\pm^{30}_{0}$	10"
	7.0 oz-in	500g-cm $\pm^{50}_{0}$	2.4 oz-in	170g-cm $\pm^{20}_{0}$	7"

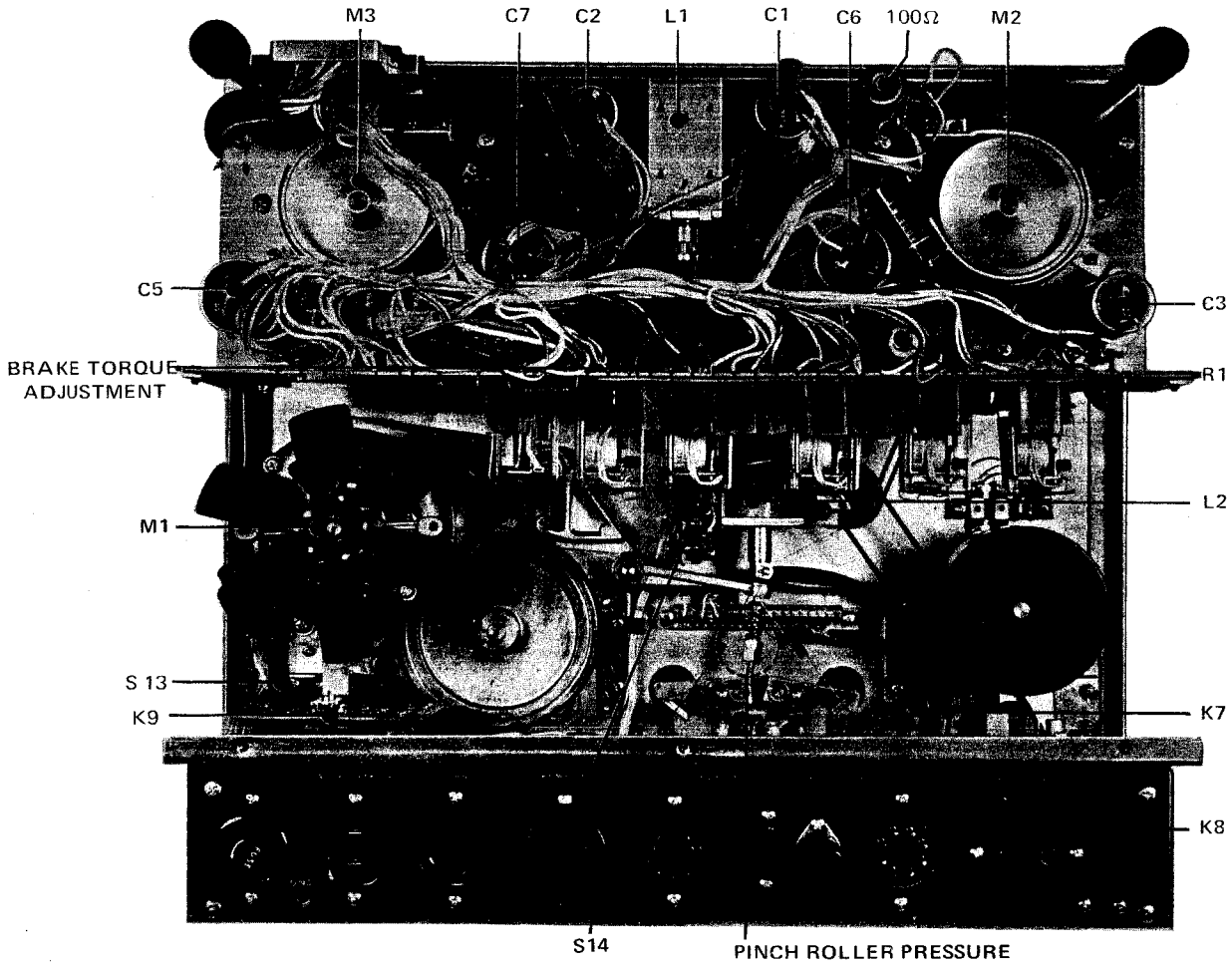
IMPORTANT
TORQUE MEASUREMENT SHOULD BE AT RATED LINE VOLTAGE.

PINCHROLLER PRESSURE: 6.2~6.8 pound 3kg
BRAKE TORQUE 26.2oz-inch 1.9g-cm



PINCH ROLLER PRESSURE MEASUREMENT

TAPE TRANSPORT



REAR VIEW

Optional ACCESSORIES

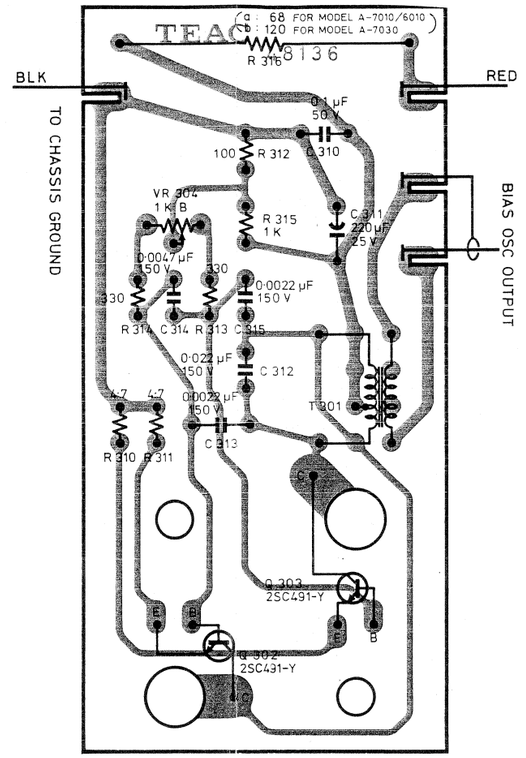
RC-701 remote control
HP-101 headphones
MC-105 microphone
MC-106H microphone
TZ-706 for converting line input/output impedance to 600 ohms
TZ-707 for converting mike input impedance to 600 ohms
TZ-211 mounting frame
RC-604 pause unit
TZ-601 plastic dust cover

PRINTED CIRCUIT BOARD AND PARTS LIST 2

PREAMPLIFIER

PC BOARD

BIAS OSCILLATOR



ALL RESISTORS IN OHM

PARTS LIST

BIAS OSCILLATOR

CIRCUIT REFERENCE	PART NO.	DESCRIPTION	1st Revision	2nd Revision
	15580250	Bias OSC PC Board Assy		
	5048136	Bias OSC PC Board		
	16742720	Mounting Plate		
Q302,303	13424051	Transistor 2SC491-Y		
T301	14705320	OSC. Coil		
VR401	50533500	Potentiometer 1KΩB 10φ		
R310,311	11111479	Resistor 47Ω		
R312	11111101	Resistor 100Ω		
R313,314	11111331	Resistor 330Ω		
R315	11111102	Resistor 1KΩ		
R316	11980030	Wirewound Resistor 68Ω(M)5W		
C311	12015227	Electrolytic CAP. 220μF25V		
C310	12318104	Mylar Cap. 0.1μF50V		
C312	50548200	Mylar Cap 0.022μF 150V (K)		
C314	50548140	Mylar Cap 0.0047μF 150V (K)		
C313,315	50548210	Mylar Cap 0.0022μF 150V (K)		

PREAMPLIFIER

CIRCUIT REFERENCE	PARTS NO.	DESCRIPTION	1st Revision	2nd Revision
R101/201	11111274	Resistor 270KΩ		
R102/202	11111102	Resistor 1KΩ		
R103/203	11111563	Resistor 56KΩ		
R104/204	11111563	Resistor 56KΩ		
R105/205	11111473	Resistor 47KΩ		
R106/206	11111153	Resistor 15KΩ		
R107/207	11111393	Resistor 39KΩ		
R108/208	11111123	Resistor 12KΩ		
R109/209	11111271	Resistor 270Ω		
R110/210	11111122	Resistor 1.2KΩ		
R111/211	11112824	Resistor 820KΩ		
R112/212	11111122	Resistor 1.2KΩ		
R113/213	11111181	Resistor 180Ω		
R114/214	11111103	Resistor 10KΩ		
R115/215	11111562	Resistor 5.6KΩ		
R116/216	11111473	Resistor 47KΩ		
R117/217	11111124	Resistor 120KΩ		
R118/218	11111102	Resistor 1KΩ		
R119/219	11111274	Resistor 270KΩ		
R120/220	11111183	Resistor 18KΩ		
R121/221	11111562	Resistor 5.6KΩ		
R122/222	11111331	Resistor 330Ω		
R123/223	11111681	Resistor 680Ω		
R124/224	11111331	Resistor 330Ω		
R125/225	11111223	Resistor 22KΩ		
R126/226	11111104	Resistor 100KΩ		
R127/227	11111102	Resistor 1KΩ		
R128/228	11111153	Resistor 15KΩ		
R129/229	11111683	Resistor 68KΩ		
R130/230	11111123	Resistor 12KΩ		
R131/231	11111332	Resistor 3.3KΩ		
R132/232	11111561	Resistor 560Ω		
R133/233	11111102	Resistor 1KΩ		
R135/235	11103274	Resistor 270KΩ		
R136/236	11111683	Resistor 68KΩ		
R137/237	11111473	Resistor 47KΩ		
R138/238	11111561	Resistor 560Ω		
R139/239	11111123	Resistor 12KΩ		
R140/240	11111104	Resistor 10KΩ		
R141/241	11111683	Resistor 68KΩ		
R142/242	11111124	Resistor 120KΩ		
R143/243	11111271	Resistor 270Ω		
R144/244	11111472	Resistor 4.7KΩ		
R145/245	11111681	Resistor 680Ω		
R146/246	11111271	Resistor 270Ω		
R147/247	11111223	Resistor 22KΩ		
R148/248	11111513	Resistor 51KΩ		
R149/249	11111513	Resistor 51KΩ		
R150/250	11111274	Resistor 270KΩ		
R151/251	11103824	Resistor 820KΩ		
R152/252	11111332	Resistor 3.3KΩ		
R153/253	11111470	Resistor 47Ω		
R154/254	11111102	Resistor 1KΩ		
R155/255	11111102	Resistor 1KΩ		
R156/256	11111473	Resistor 47KΩ		
R157/257	11111223	Resistor 22KΩ		
R158/258	11111222	Resistor 2.2KΩ		
R159/259	11111470	Resistor 47Ω		
R160/260	11111122	Resistor 1.2KΩ		
R1/R11	11111393	Resistor 39KΩ		
R2/R21	11111393	Resistor 39KΩ		
R3/R13	11111183	Resistor 18KΩ		
R134	11109472	Resistor 4.7KΩ		
R161	11109104	Resistor 100KΩ		
R261	11109154	Resistor 150KΩ		
R321/322	11109362	Resistor 3.6KΩ		
R317	50522110	Wirewound Resistor 330Ω 10W		
R307	11111471	Resistor 470Ω		
R308	11111122	Resistor 1.2KΩ		
R309	11111223	Resistor 22KΩ		
R318	11112121	Resistor 120Ω		
R319	11112151	Resistor 150Ω		
R320	11980003	Wirewound Resistor 3.3Ω 1W		

PREAMPLIFIER (CON'T)

CIRCUIT REFERENCE	PART NO.	DESCRIPTION	1st Revision	2nd Revision
C101/201	12900038	Tuntalum CAP. 1μF 10V		
C102/202	12014477	Electrolytic CAP. 470μF 16V		
C103/203	12318102	Mylar Cap. 0.001μF		
C104/204	12012476	Electrolytic Cap. 47μF 6.3V		
C105/205	12012107	Electrolytic Cap. 100μF 6.3V		
C106/206	12013107	Electrolytic Cap. 100μF 10V		
C108/208	50543110	Polystyrene Cap. 330pF 250V		
C109/209	12318152	Mylar Cap. 0.015μF 50 (K)		
C110/210	12016106	Electrolytic CAP. 10μF 50V		
C111/211	12013106	Electrolytic CAP. 10μF 10V		
C112/212	50546040	Ploystyrene CAP. 220pF 250V		
C113/213	12013106	Electrolytic CAP. 10μF 10V		
C114/214	50543140	Polystyrene CAP. 100pF 250(K)		
C115/215	50546040	Polystyrene CAP. 220pF 250(K)		
C116/216	12014106	Electrolytic CAP. 10μF 16V		
C117/217	12014106	Electrolytic CAP. 10μF 16V		
C118/218	12014336	Electrolytic CAP. 33μF 16V		
C119/219	50543150	Polystyrene CAP. 50pF 250V		
C120/220	12013106	Electrolytic CAP. 10μF10V		
C121/221	50543140	Polystyrene CAP. 100pF 250V		
C122/222	12012336	Electrolytic CAP. 33μF 6.3V		
C123/223	12014106	Electrolytic CAP. 10μF 16V		
C124/224	12013106	Electrolytic CAP. 10μF 10V		
C125/225	12012227	Electrolytic CAP. 220μF 6.3V		
C126/226	12014336	Electrolytic CAP. 33μF 16V		
C127/227	12318104	Mylar Cap. 0.1μF 50 (K)		
C128/228	12318104	Mylar Cap. 0.1μF 50 (M)		
C129/229	12015474	Tantalum CAP. 0.47μF 25V		
C130/230	50543250	Polystyrene CAP. 22pF 250V		
C131/231	12015335	Electrolytic CAP. 3.3μF 25V		
C132/232	12012476	Electrolytic CAP. 47μF 6.3V		
C133/233	12200102	Polystyrene CAP. 1000pF 125WV		
C134/234	12013106	Electrolytic CAP. 10μF 10V		
C135/235	50543150	Polystyrene CAP. 50pF 250V		
C136/236	12015335	Electrolytic CAP. 3.3μF 25V		
C137/237	12318333	Mylar Cap. 0.033μF 50 (K)		
C138/238	12318473	Mylar Cap. 0.047μF 50 (K)		
C139/239	50543120	Polystyrene CAP. 820pF 250(M)		
C140/240	50548210	Myler 0.0022μF 150(K)		
C141/241	12014106	Electrolytic CAP. 10μF 16V		
C1/C11	12132105	Tuntalum 1μF 25V		
C2/C12	12132105	Tuntalum 1μF 25V		
C3/C13	12132335	Tuntalum 3.3μF 25V		
C142/242	50543140	Polystyrene CAP. 100pF 250(K)		
C306	12015107	Polystyrene CAP. 100μF 25V		
C307	12015107	Polystyrene CAP. 100μF 25V		
C308	50543110	Polystyrene CAP. 330pF 250(M)		
C309	50548200	Mylar Cap. 0.022μF 150 (K)		
C316	12318103	Mylar Cap 0.01μF 50 (K)		
C317	50555110	Electrolytic CAP. 1000μF 35V		
C318	50555110	Electrolytic CAP. 1000μF35V		
C319	50555110	Electrolytic CAP. 1000μF 35V		
C320	12318103	Myler CAP. 0.01μF 50(K)		

MISCELLANEOUS

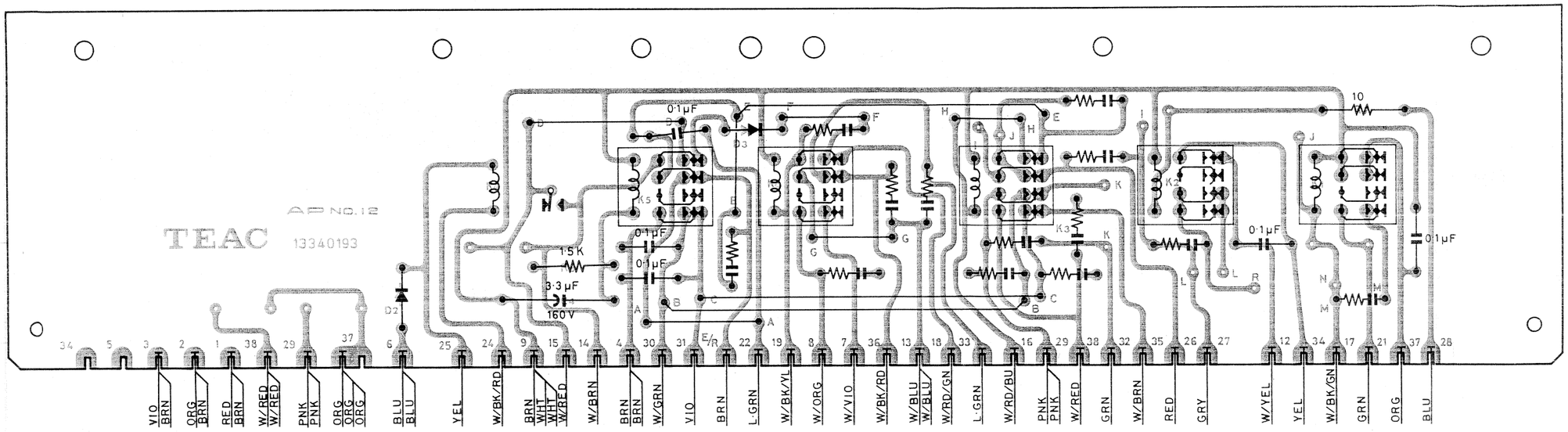
K301	13203110	DC Relay Na BV474 D01214A
T101/201	50562090	Output Xformer 5KΩ:8Ω
L102/202	50566100	EQ Coil 2.4/4.2mH
L103/203	50566090	Bias Trap Coil 3mH
L301	50566090	Dummy Coil 3mH
L101/201	14721890	Bias Trap Coil 22mH
	50240630	PC Board Support
	50452020	Terminal Strip 1L-3P

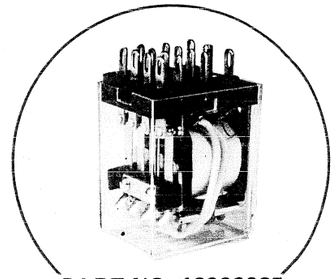
POTENTIOMETERS

VR101,102 201,202	50533020	PC Mount Potentiometer 10KΩB 10φ
VR105,106 205,206	50533010	PC Mount Potentiometer 5KΩB 10φ
VR107/207	50533060	PC Mount Potentiometer 50KΩB 15φ
VR104/204	50533510	PC Mount Potentiometer 500Ω 10φ
VR305	50533060	Potentiometer 100KΩB
VR103 203	50533050	PC Mount Potentionmeter V101KR 150KΩB10φ

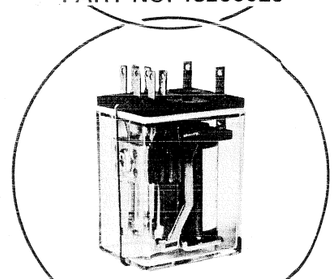
CONTROL RELAYS

VIEW FROM FOIL SIDE



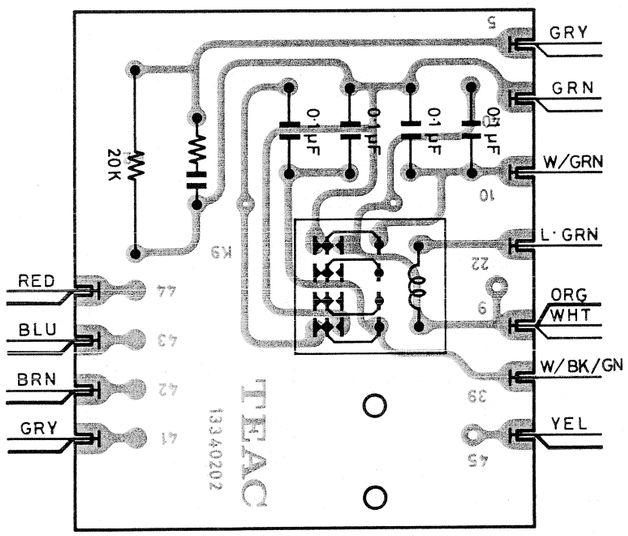


PART NO. 13200025



PART NO. 13200045

CAPSTAN RELAYS



—— : TO CAPSTAN MOTOR

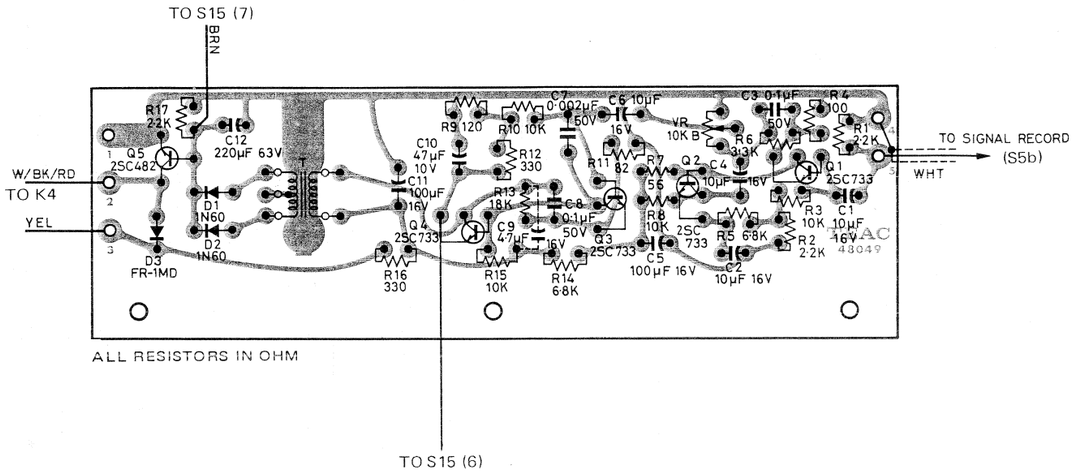
PARTS LIST

REVERSE SENSING AMPLIFIER

CIRCUIT REFERENCE	PART No.	DESCRIPTION	1st Revision	2nd Revision
	15910310	Reverse AMP Assy		
	50480490	Reverse AMP PC Board		
		Screw M3x6		
D3	13411014	Diode FR-1MD		
D1·2	13413009	Diode 1N-60		
T	50562100	Output Xformer		
Q1·2·3·4	13424040	Transistor 2SC372		
Q5	13424048	Transistor 2SC482		
	50533200	PC Mounting Potentiometer 10φ 20kΩ		
R1·2·17	11109222	Resistor 2.2kΩ(k)¼w		
R3·8·10	11109103	Resistor 10kΩ (k)¼w		
R4	11109101	Resistor 100Ω(k)¼w		
R7	11109563	Resistor 56kΩ(k)¼w		
R5·14·15	11109682	Resistor 6.8kΩ(k)¼w		
R6	11109333	Resistor 33kΩ(k)¼w		
R11	11109820	Resistor 82Ω(k)¼w		
R13	11109183	Resistor 18kΩ		
R12·16	11109331	Resistor 330Ω(k)¼w		
R9	11109121	Resistor 120Ω (k)¼w		
C12	12000207	Electrolytic CAP 200μF/3V		
C5·11	12004107	Electrolytic CAP 100μF/16V		
C10	12053506	Electrolytic CAP 50μF/10V		
C1·2·4·3·6	12002106	Electrolytic CAP 10μF/10V		
C8	12318104	Mylar Cap 0.1μF/50WV		
C7	12318222	Mylar Cap 0.0022μF/50WV		
C9	12175475	Tantalum Cap 4.7μF/15WV $\pm^{40}_{20}$%		
	50480560	PC Board		

PC BOARD

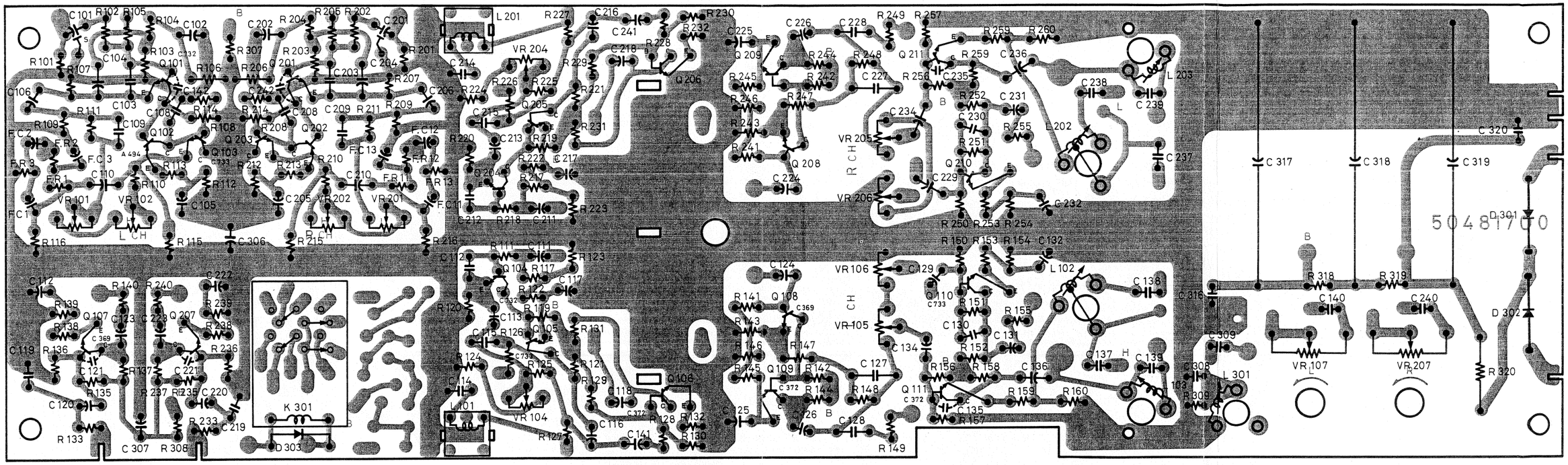
REVERSE SENSING AMPLIFIER



PC BOARD

PREAMPLIFIER

VIEW FROM FOIL SIDE

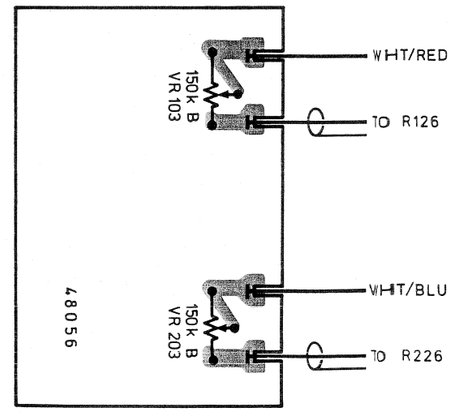


PARTS LIST

PREAMPLIFIER

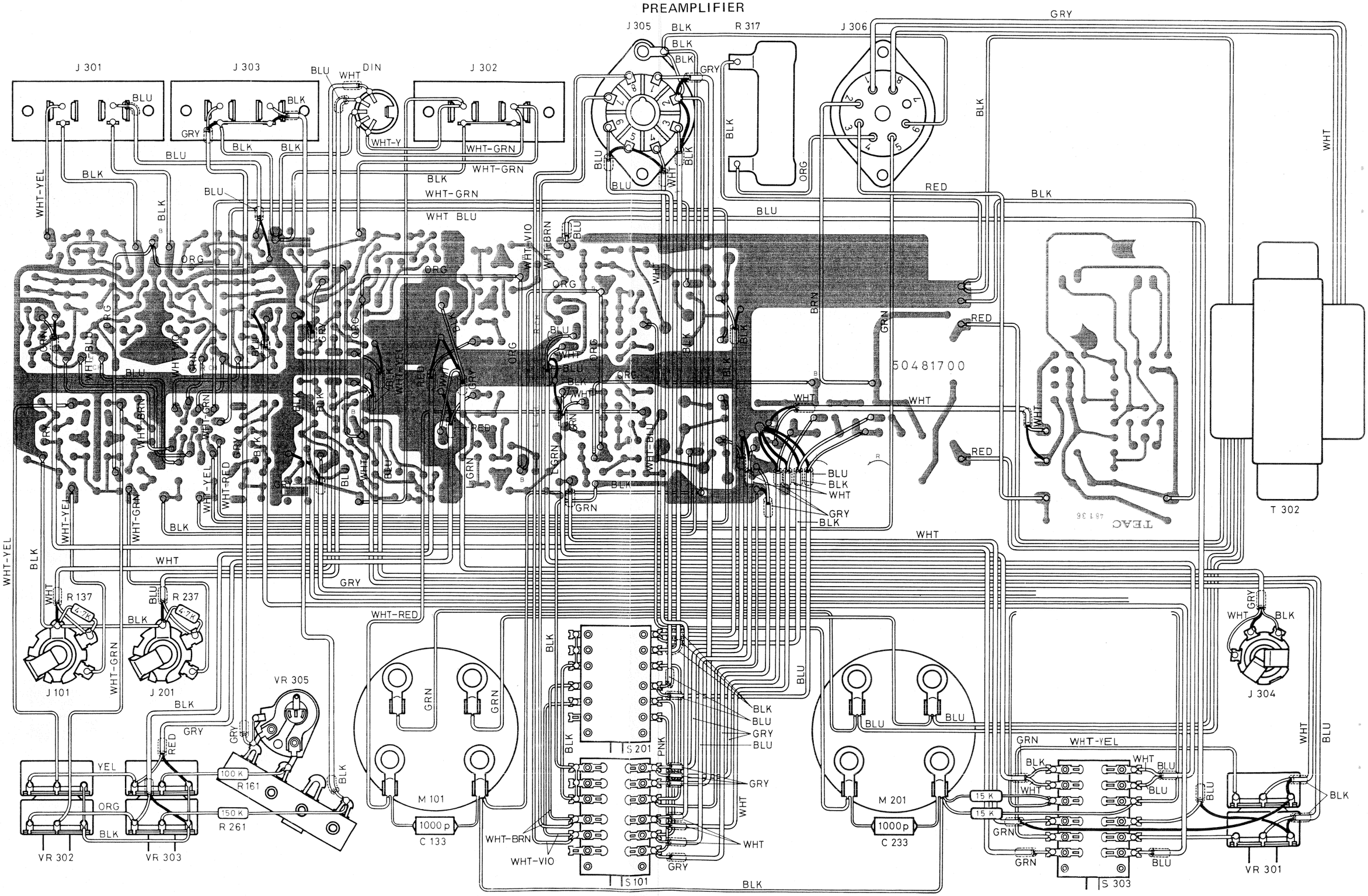
SEMICONDUCTORS

CIRCUIT REFERENCE	PART NO.	DESCRIPTION	1st Revision	2nd Revision
Q101,104 201,204	13425014	Transistor 2SC732 (V)		
Q103,105 203,205	13424077	Transistor 2SC733 (Y)		
Q102,202	13421052	Transistor 2SA494 (GR)		
Q106,109 206,209	13424041	Transistor 2SC372 (Y)		
Q107,108 207,208	13424034	Transistor 2SC369 (BL)		
Q110,210	13424077	Transistor 2SC733 (Y)		
Q111,211	13424041	Transistor 2SC372 (Y)		
D301,302	13411014	Diode FR-IMD		
D303		Diode SIB01-02		



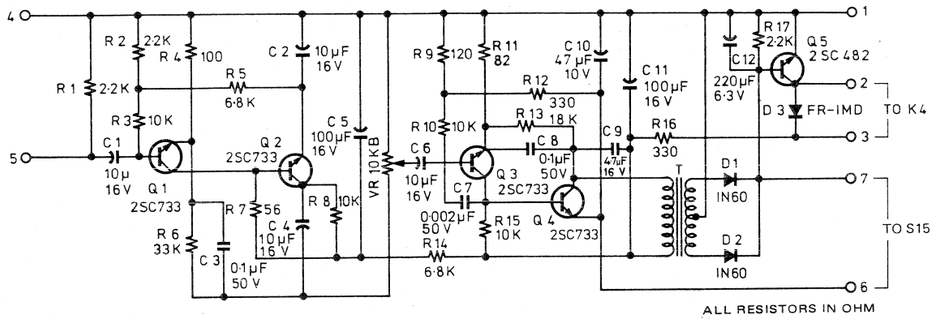
WIRING DIAGRAM

PREAMPLIFIER



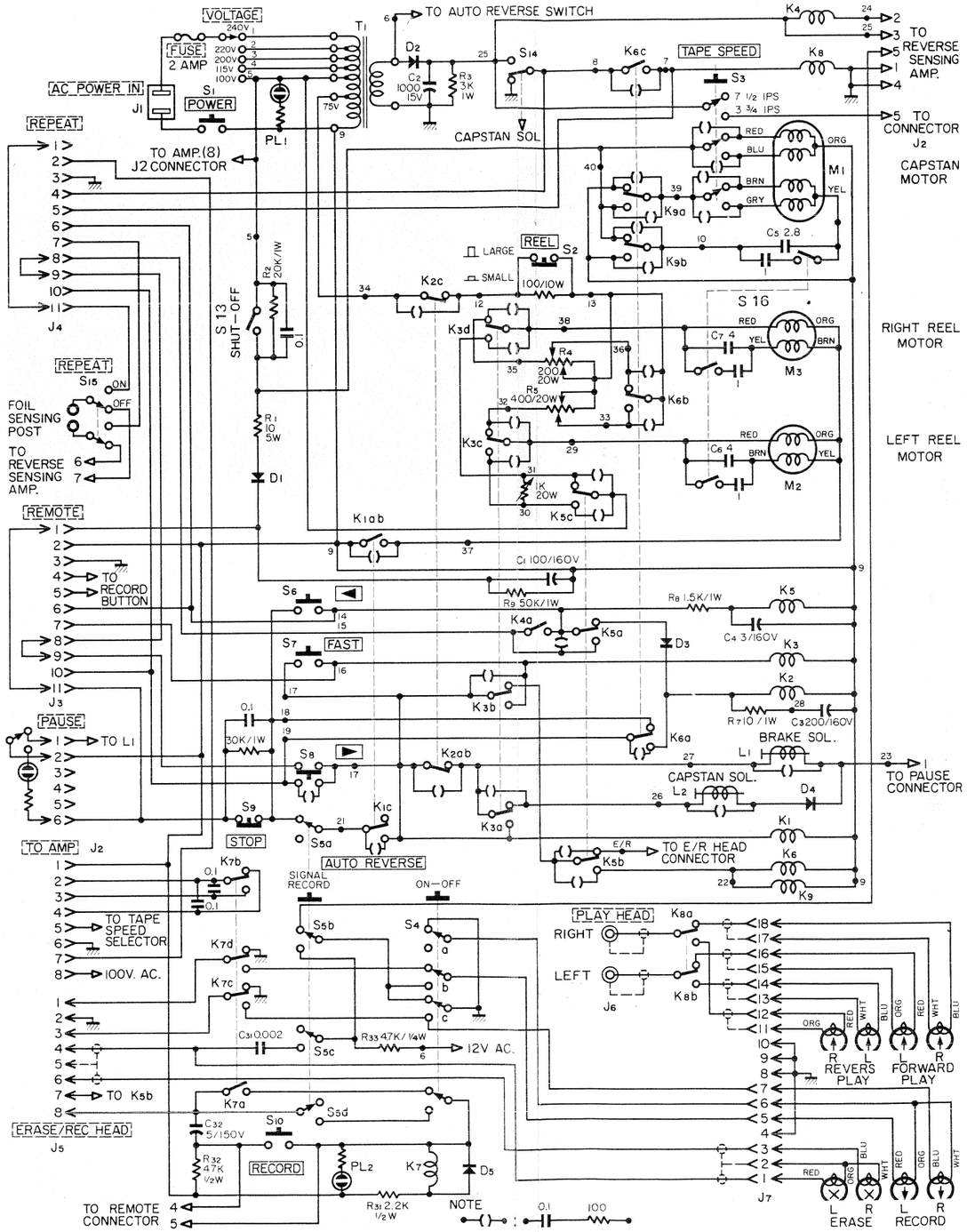
SCHEMATIC DIAGRAM

REVERSE SENSING AMPLIFIER



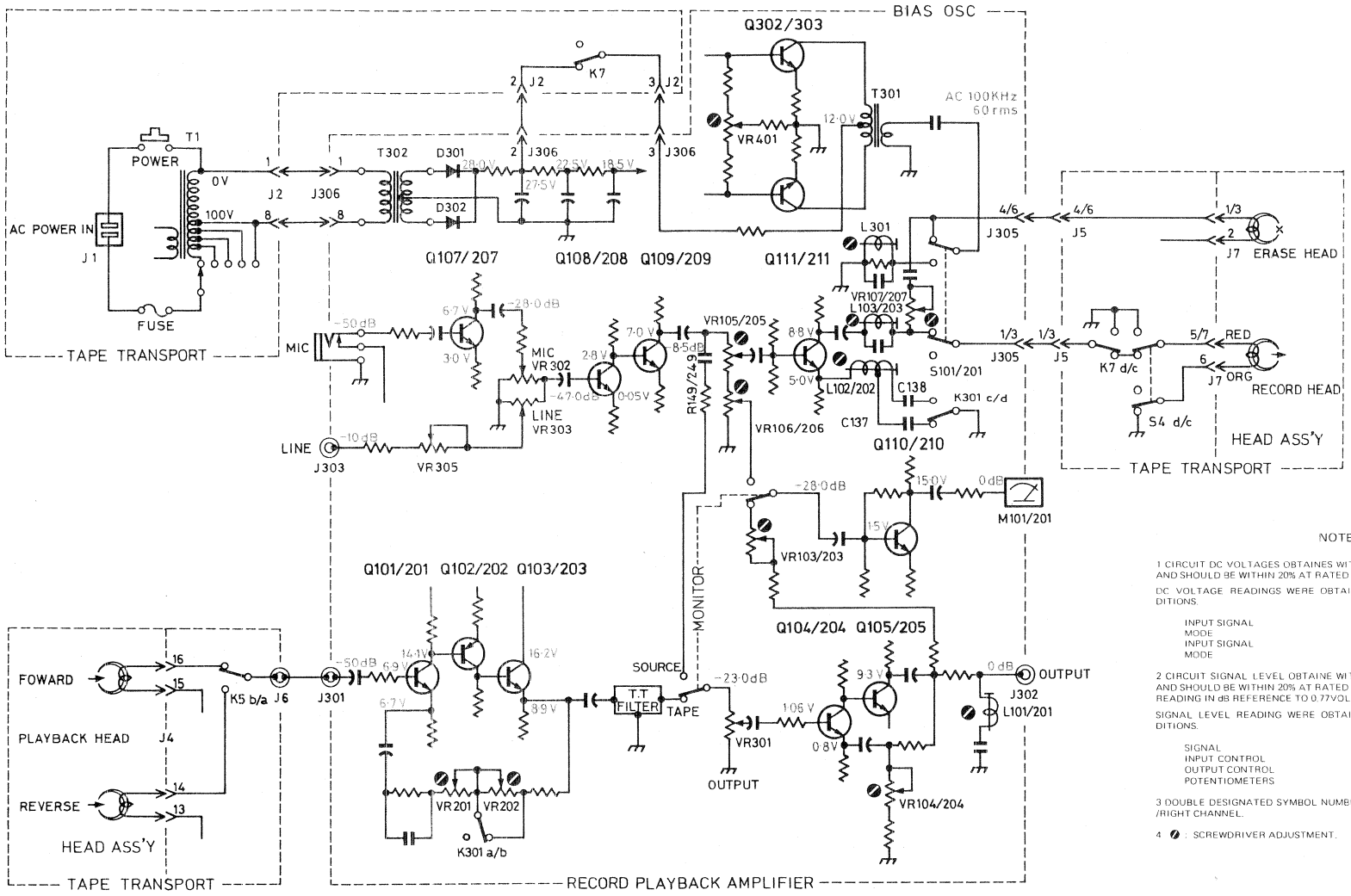
SCHEMATIC DIAGRAM
A-7010

TAPE TRANSPORT



NOTES
1 ALL RELAYS SHOWN NOT ENERGIZED (STOP MODE).
2 S3 TAPE SPEED SWITCH SHOWN IN THE 7½ IPS POSITION.
3 FREQUENCY CONVERTION SWITCH SHOWN IN THE 60Hz POSITION.
4 S2 REEL SIZE SELECT SWITCH SHOWN IN LARGE POSITION.
5 ▭ : ON FRONT PANEL, ⊏⊐ : ON REAR PANEL.

SIGNAL LEVEL AND DC VOLTAGE CHART



NOTES

1 CIRCUIT DC VOLTAGES OBTAINES WITH HIGH INPUT IMPEDANCE DC VTVM AND SHOULD BE WITHIN 20% AT RATED LINE VOLTAGE.

DC VOLTAGE READINGS WERE OBTAINED UNDER THE FOLLOWING CONDITIONS.

INPUT SIGNAL	NONE.
MODE	STEREO RECORD.
INPUT SIGNAL	NONE.
MODE	STEREO RECORD.

2 CIRCUIT SIGNAL LEVEL OBTAINE WITH HIGH INPUT IMPEDANCE AC VTVM AND SHOULD BE WITHIN 20% AT RATED LINE VOLTAGE.
READING IN dB REFERENCE TO 0.77VOLT.

SIGNAL LEVEL READING WERE OBTAINED UNDER THE FOLLOWING CONDITIONS.

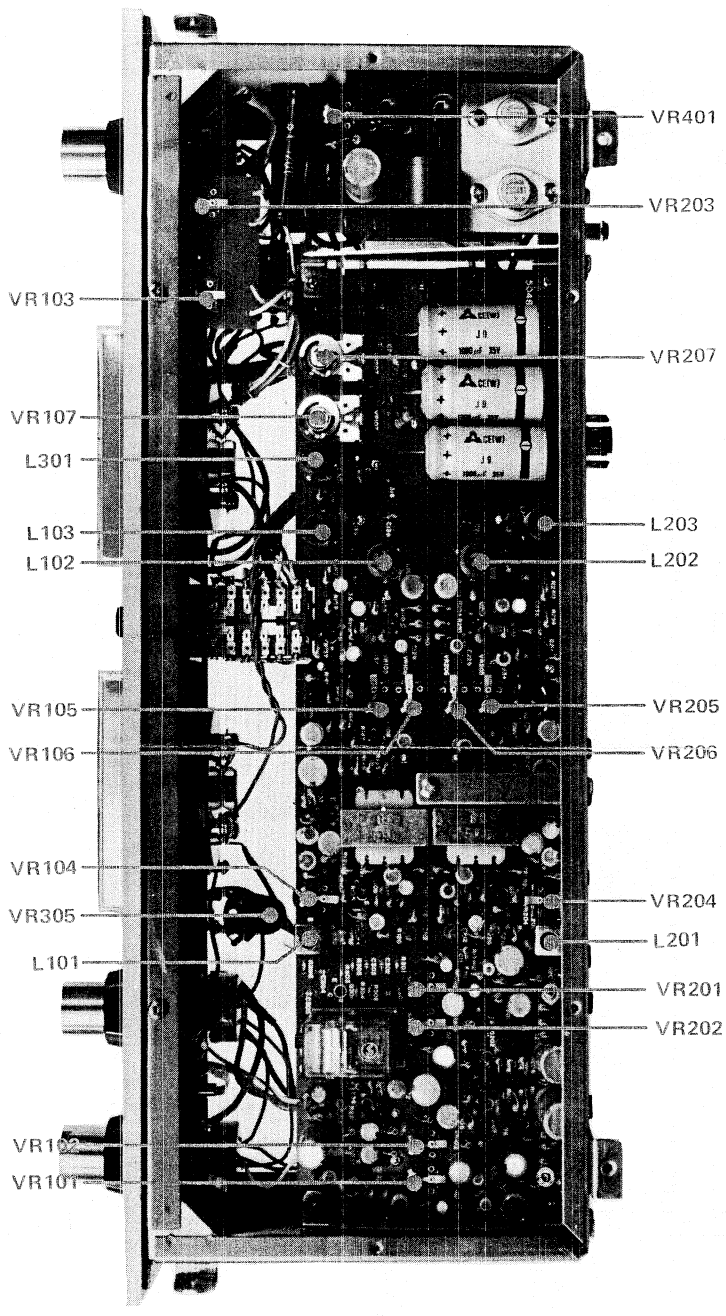
SIGNAL	500Hz OPERATING LEVEL.
INPUT CONTROL	FULL CLOCKWISE.
OUTPUT CONTROL	REFERENCE LEVEL.
POTENTIOMETERS	OPTIMUM SETTING.

3 DOUBLE DESIGNATED SYMBOL NUMBERS REFER TO LEFT CHANNEL /RIGHT CHANNEL.

4 ⌀ : SCREWDRIVER ADJUSTMENT.

ADJUSTABLE PARTS LOCATION

COMPONENT SIDE



NOTES

VR 104/204	PLAYBACK OUTPUT LEVEL BALANCER.
VR 103/203	PLAYBACK LEVEL METER CALIBRATION.
VR 101/201	PLAYBACK EQUALIZATION FOR 7½IPS.
VR 102/202	PLAYBACK EQUALIZATION FOR 3¾IPS.
L103/203	BIAS TRAP.
L 101/201	BIAS TRAP.
VR 105/205	RECORD LEVEL CALIBRATION.
VR 106/206	RECORD LEVEL METER CALIBRATION.
VR 107/207	BIAS ADJUSTER.
L 102/202	RECORD EQUALIZATION.
VR 401	RECORD NOISE BALANCER.
L 301	DUMMY REC HEAD.